

IN THE CLAIMS

Please cancel Claims 1-21 and add new Claims 22-42:

22. A process for preparing cyclic compounds comprising
subjecting a starting material in the presence of a catalyst component to metathesis
reaction in the presence of an ionic liquid,

wherein the starting material is selected from the group consisting of
compounds containing at least two functional groups in the form of substituted or
unsubstituted alkene or alkyne units; and

wherein the catalyst component includes homogeneous catalysts and
heterogeneous catalysts selected from the group consisting of (i) transition metal
carbenes, (ii) transition metal compounds that form transition metal carbenes under
the reaction conditions, and (iii) transition metal salts in combination with an
alkylating agent.

23. The process of Claim 22, wherein the cyclic compounds are selected
from the group consisting of carbocyclic compounds and heterocyclic compounds
having ring sizes of ≥ 5 ring atoms.

24. The process of Claim 22, wherein the starting material further
comprises at least one substituent that is inert in the metathesis reaction and/or a
heteroatom.

25. The process of Claim 24, wherein the at least one substituent or the
heteroatom is selected from the group consisting of branched or unbranched alkyl
radicals, aromatic or non-aromatic carbocyclic rings, carboxylic acids, esters, ethers,
epoxides, silyl ethers, thioethers, thioacetals, anhydrides, imines, silylenol ethers,
ammonium salts, amides, nitriles, perfluoroalkyl groups, geminal dialkyl groups,
alkynes, alkenes, halogens, alcohols, ketones, aldehydes, carbamates, carbonates,
urethanes, sulphonates, sulphones, sulphonamides, nitro groups, organosilane
units, metal centers and oxygen-containing heterocycles, nitrogen-containing
heterocycles, sulphur-containing heterocycles, and phosphorus-containing
heterocycles.

26. The process of Claim 25, wherein the starting material is a α,ω -diene

that optionally contains a member selected from the group containing at least one further substituent that is inert in the metathesis reaction and a heteroatom,

wherein the further substituent or heteroatom is selected from the group consisting of branched alkyl radicals, unbranched alkyl radicals, aromatic carbocyclic rings, non-aromatic carbocyclic rings, carboxylic acids, esters, ethers, epoxides, silyl ethers, thioethers, thioacetals, anhydrides, imines, silylenol ethers, ammonium salts, amides, nitriles, perfluoroalkyl groups, geminal dialkyl groups, alkynes, alkenes, halogens, alcohols, ketones, aldehydes, carbamates, carbonates, urethanes, sulphonates, sulphones, sulphonamides, nitro groups, organosilane units, metal centers and oxygen-containing heterocycles, nitrogen-containing heterocycles, sulphur-containing heterocycles and phosphorus-containing heterocycles.

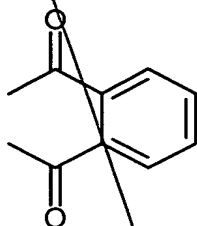
27. The process of Claim 26, wherein the α,ω -dienes used bear a α substituent NRR^1 in the α position to a double bond, wherein

R is hydrogen or an organic substituent,

R^1 is tert-butyl, $\text{P}(\text{R})_2$, $\text{P}(\text{R}^2)_2$, COR, SO_2PhR , COOR or CONRR^2 ,

R^2 is alkyl or phenyl,

or R and R^1 together form

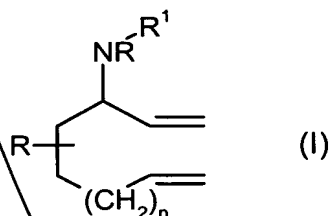


and

said α,ω -dienes may also bear at least one further substituent R in any other position with the exception of the α position.

28. The process of Claim 27, wherein R is selected from the group consisting of hydrogen, fused or unfused aryl, alkyl, CN, COOR² or halogen.

29. The process of Claim 27, wherein the α,ω -dienes used have the formula (I)



wherein R, R¹ and R² are as defined in Claim 27 and n is 1, 2, 3 or 4.

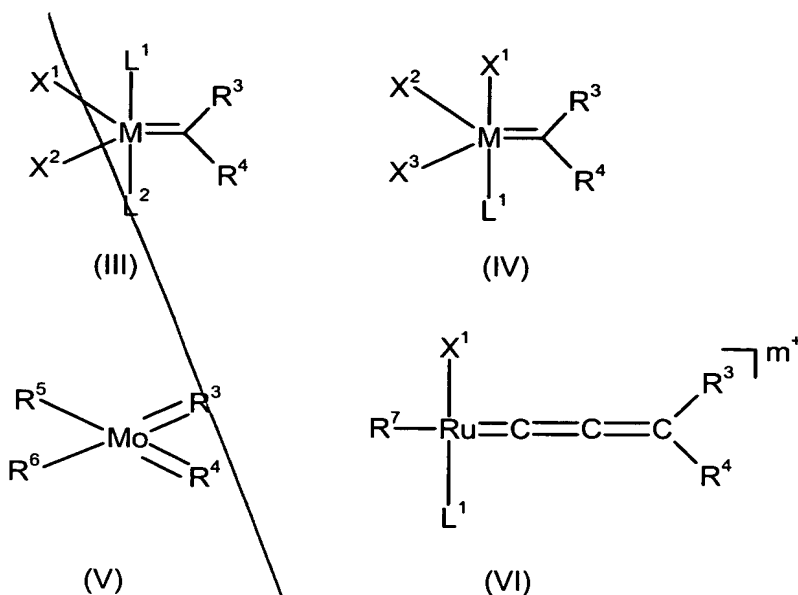
30. The process of Claim 29, wherein n is 1 or 2.

31. The process of Claim 30, wherein n is 1.

32. The process of Claim 27, wherein the α,ω -dienes used are diallylamine or 3-amino-1,7-octadiene, or 1,7-octadiene, 10-undecenoyl-allylamide, 1,4-bis-oxypropen-2-yl-but-2-ene or buten-4-yl 10-undecenoate.

33. The process of Claim 32, wherein the α,ω -dienes used are in N-carboxymethyl-protected form.

34. The process of Claim 32, wherein the catalysts used are compounds of the formulae (III), (IV) (V) and (VI):



wherein M is ruthenium or osmium, and

wherein R³ to R⁷ are radicals selected from the group consisting of hydrogen, C₁-C₂₀-alkyl, C₃-C₈-cycloalkyl, C₁-C₂₀-alkenyl, C₂-C₂₀-alkynyl, C₆-C₁₈-aryl, C₁-C₂₀-carboxylate, C₁-C₂₀-alkoxy, C₂-C₂₀-alkenyloxy, C₂-C₂₀-alkynyloxy, C₆-C₁₈-aryloxy, C₂-C₂₀-alkoxycarbonyl, C₁-C₂₀-alkylthio, C₁-C₂₀-alkylsulphonyl and C₁-C₂₀-alkylsulphinyl, N-aryl; wherein in each case unsubstituted or substituted by C₁-C₉-alkyl, perfluoroalkyl, halogen, C₁-C₅-alkoxy or C₆-C₁₈-aryl; and wherein the radicals R³ to R⁷ may be linked to one another in cyclic compounds,

X¹ to X³ are anionic ligands are selected from the group consisting of F⁻, Cl⁻, Br⁻, CN⁻, SCN⁻, R³O⁻, R³R⁴N⁻, (R³-R⁷)-allyl, (R³-R⁷)-cyclopentadienyl⁻, wherein the radicals R³ to R⁷ are as defined above,

L¹ to L³ are uncharged ligands are selected from the group consisting of CO, CO₂, R³NCO, R³R⁴C=CR⁵R⁶, R³C≡CR⁴, R³R⁴C=NR⁵, R³C≡N, R³OR⁴, R³SR⁴, NR³R⁴R⁵, PR³R⁴R⁵, AsR³R⁴R⁵, SbR³R⁴R⁵, wherein the radicals R³ to R⁵ are as defined above and m is 1 or 2.

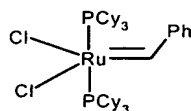
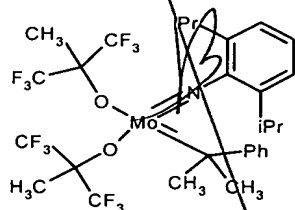
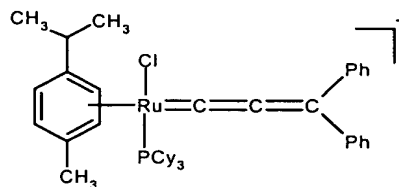
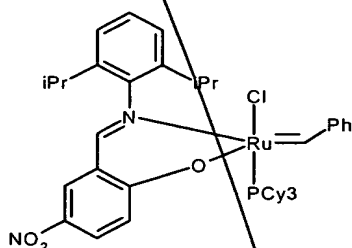
35. The process of Claim 34, wherein the catalysts or catalyst precursors used are compounds of the formula (III) and/or (IV), wherein L¹ and L² is PR³R⁴R⁵,

wherein R^3 to R^5 are as defined above.

36. The process of Claim 35, wherein R^3 to R^5 are selected from the group consisting of aryl and alkyl groups.

37. The process of Claim 36, wherein R^3 to R^5 are selected from the group consisting of secondary alkyl radicals and cycloalkyl radicals.

38. The process of Claim 35, wherein the catalysts used are the following compounds:



39. The process of Claim 32, wherein the ionic liquids used are selected from the group consisting of ammonium hexafluorophosphate, ammonium tetrafluoroborate, ammonium tosylate, ammonium hydrogen sulphate and salt mixtures comprising aluminium halides in combination with at least one quaternary ammonium halide and/or at least one quaternary phosphonium halide.

40. The process of Claim 34, wherein the ionic liquids used are selected from the group consisting of pyridinium hexafluorophosphate, pyridinium tetrafluoroborate, pyridinium hydrogen sulphate, 1-methyl-3-butylimidazolium hexafluorophosphate or combinations of aluminium chloride with 1-methyl-3-butyl-

imidazolium chloride, 1-methyl-3-ethylimidazolium chloride, N-butylpyridinium chloride and tetrabutylphosphonium halide.

41. The process of Claim 22, wherein the ionic liquids used are selected from the group consisting of combinations of aluminium halide with mixtures of quaternary ammonium halides, quaternary phosphonium halides, and mixtures of ammonium hexafluorophosphate, ammonium tetrafluoroborate, ammonium tosylate and ammonium hydrogen sulphate.

42. The process of Claim 22, wherein the reaction medium further comprises an additive selected from the group consisting of phosphorus compounds, amines, perfluorinated compounds, metal alkoxides and organic solvents, perfluorinated compounds, metal alkoxides and organic solvents.

IN THE SPECIFICATION

On page 15, please cancel the formula located in the above the arrow and insert the following formula:

